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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,755	10/21/2003	Kazuhito Sacki	3140-016	6009

33432 7590 11/26/2007  
KILYK & BOWERSOX, P.L.L.C.  
400 HOLIDAY COURT  
SUITE 102  
WARRENTON, VA 20186

EXAMINER
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LIEW, ALEX KOK SOON

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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11/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/689,755	<b>Applicant(s)</b> SAEKI, KAZUHIITO	
	<b>Examiner</b> Alex Liew	<b>Art Unit</b> 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The amendment filed on September 12, 2007 is entered and made of record.

### **Response to Applicant Arguments**

1. On page 6, the applicant stated:

... Yamagata does not include any suggestion that window elements can be "selectively" set. Instead, once a window has been accepted in the system of Yamagata, there is nothing that can be "selectively" set, adjusted, or manipulated within that filtering frame.

The examiner disagrees. The limitation in claim 1, recites "an element setting unit for selectively setting a plurality of window elements in the one edge window set be said edge window setting unit," where "setting" can be read as selectively "placing" window elements within an edge window. Yamagata discloses an element setting unit for selectively setting a plurality of window elements in the one edge window set be said edge window setting unit (the entire frame in figure 4A is read as an edge window, each window elements, A, B and C are selectively placed in edge areas).

2. On page 7, the applicant stated:

Applicant respectfully submits that the office Action has applied the document circle-detector of Yamagata to a "workpiece" without demonstrating a linkage between those two uses, whose purpose and application are significantly different.

Circular workpieces may include screw head on an electronic board or a circular craved wooden table. In image processing the computer cannot distinguish whether it is a circle

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mark in a document or a circular workpiece, without using classification methods; to a computer where a edge detector is use, the edge detector only sees difference in pixel intensities.

The examiner will repeat the same grounds of rejection.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4 and 5 are rejected under U.S.C. 103(a) as being unpatentable over Yamagata (US pat no 6,021,222) in view of official notice (MPEP 2144.03).

With regards to claim 1, Yamagata discloses an image processing apparatus comprising

- an edge window setting unit for an edge window for detecting edges of an image (see column 8 lines 5 – 7 – the gradient vector calculator find potential edges in image and find areas candidate shown in figure 4A),

- an element setting unit for selectively setting a plurality of window elements in the one edge window set by said edge window setting unit (see figure 4A – there are windows placed on the edges of the images labeled areas A, B and C),
- an edge detection unit for scanning each of the window elements and obtaining edges every each the window element (see column 8 lines 63 – 67 and figure 4B) and
- a calculation unit for obtaining an edge related information from the edges detected by said detection unit (see figure 2 – 3).

Yamagata does not disclose detecting edges of a work-piece in an image though it does detect edges in an image. It is well known in the art of image analysis to detect edges in electronic circuit in an image. One skilled in the ordinary art would include detecting edges of a work-piece in an image because to inspect the quality of the electronic devices in order to detect defects present in electronic devices, to improve quality of the electronic devices.

With regards to claims 4 and 5, see the rationale and rejection for claim 1.

3. Claims 2, 3, 6 and 7 – 11 are rejected under U.S.C. 103(a) as being unpatentable over Yamagata ('222) in view of official notice as applied to claim 1 further in view of Lopez (US pat no 6,148,117).

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With regards to claim 2, Yamagata discloses all the limitations discussed in claim 1, but does not disclose having user select parameter of filtering process. Lopez suggests having the operator select various parameters such as resolution and sharpening coefficients (see column 6 lines 40 – 45) and these the size of the filters maybe selected from a group of filters of different sizes (see column 7 lines 2 – 9). One skilled in the ordinary art would include having the user select a filter kernel size because to have user experiment with the different sizes to find the filter which produces the best result and allows a user to create the exact desired effect.

With regards to claim 3, Yamagata discloses a image processing apparatus as defined in claim 1, wherein said element setting unit sets the plurality of window elements based on a distance between adjacent window elements (see figure 2 – 2 – the gradient calculator detects candidates of edge region and a window is placed over them), but does not have the user selects the location to place each window. Lopez suggests having the operator select various parameters (see column 6 lines 40 – 45). The combination of Yamagata and Lopez disclose the claimed invention of claim 3. One skilled in the ordinary art would have the user select where to place the window because the gradient calculate may extract false edges that will result is error, having an operator to place the window may prevent errors.

With regards to claim 6, see the rationale and rejection for claim 2.

With regards to claim 7, see the rationale and rejection for claim 3.

With regards to claim 8, Yamagata discloses a image processing apparatus of claim 1, wherein said plurality of window elements has a width and there is a distance between said window elements, wherein said width and said distance are assigned automatically inside said edge window (see figure 4A and 4B), but does not have the user selects the location to place each window. Lopez suggests having the operator select various parameters (see column 6 lines 40 – 45). The combination of Yamagata and Lopez disclose the claimed invention of claim 3. One skilled in the ordinary art would have the user select where to place the window because the gradient calculate may extract false edges that will result is error, having an operator to place the window may prevent errors.

With regards to claim 9, Yamagata discloses an image processing apparatus of claim 1, wherein when said element setting unit sets the plurality of window elements inside said edge window, a setting is performed so that the window elements are always present in one end and the other end of the edge window (see figure 6B – 15r and 15l are the two end of the edge window).

With regards to claim 10, see the rationale and rejection for claim 8.

With regards to claim 11, see the rationale and rejection for claim 9.

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alex Liew  
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11/14/07



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